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RESPONSIVENESS OF THE LOCAL GOVERNMENT UNIT OF BARANGAY DALICAN IN THE AFTERMATH OF TYPHOON PAENG: FOCUS IN MSU - MAGUINDANAO

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I. INTRODUCTION

1.1 Background of the Study

Since time immemorial, disasters undermine development achievements, depleting people and nations. With this, disaster preparedness has become a priority concern and plays a vital role in saving lives and livelihoods, particularly when integrated into an overall disaster risk reduction approach.

Neither developing nor developed states have not been spared from disasters, indemnities in various properties and the loss of great number of lives. To mention a few, in 2004, the West Coast of Sumatra, Indonesia was struck by an undersea mega thrust earthquake, which resulted to the Indian Ocean tsunami that washed away 230,000 lives and impacted almost a dozen countries. The following year Hurricane Katrina struck the United States. Hurricane Katrina was considered as the deadliest and costliest disaster that occurred in the US for the past decades. As such, thousands of lives were lost and left damaged properties that cost billions of dollars (Knabb et. al, 2005). In 2010, the world witnessed another gigantic devastation and was shocked of a disaster that hit Haiti resulting to great loss of properties and killing at least 316,000 lives and injuring 300,000 people (CBC News, 2011).

The Philippines too has had experiences of disasters. The country lies along the western rim of the Pacific Ring of Fire, with a belt of active volcanoes and major earthquake faults, and the Pacific typhoon belt. It has a total discontinuous coastline of 32,400 km. which makes it vulnerable to the adverse impacts of climate change. It is one of the world's most natural disaster-prone countries due to a combination of high incidence of typhoons, floods, landslides, droughts, volcanoes, earthquakes Rincón and Virtucio, 2008).

As one of the islands of the Philippines, Mindanao has been reported to be hit only about once every twelve years by a significant tropical storm or typhoon. This has been evident by the most recent tropical storm Nalgae that hit Maguindanao. Typhoon Nalgae, also called as "Paeng" locally, devastated Maguindanao on October 28, 2022, especially in the town of Datu Odin Sinsuat, Maguindanao del Norte. It caused casualties and damages while wreaking havoc on people's lives, possessions, and means of subsistence. Many were sleeping in their homes when water and a landslide started at around 2:00 AM. The affected families fled to safer areas about 8:00 AM, mostly to evacuation centers, however others tried to stay with relatives in the surrounding barangays (UNHCR, 2022)

Due to the Philippines' susceptibility to natural and human-induced disasters, efforts have been made for the past several years to build people's capacities and resilience to disasters. This is in line with the country's commitment to achieve the targets set by the Millennium Development Goals (MDGs) and its commitment to build resilient communities as expressed by its adoption of the Hyogo Framework for Action (HFA) in 2005. The HFA was formulated and adopted by 168 governments at the World Conference on Disaster Reduction held in Kobe, Japan and is aimed at building the resilience of nations and communities to disasters and reducing vulnerabilities and risks to hazards. It aims to have (a) effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels – disaster prevention, mitigation, preparedness and vulnerability reduction; (b) development and strengthening of institutions, mechanisms and capacities at all levels; and (c) systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programs in the reconstruction of affected communities (NDRRMP, 2011).

These three (3) strategic goals are to be achieved through the five (5) priorities of action, namely: Action 1: Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation. Action 2: Identify, assess and monitor disaster risks and enhance early warning. Action 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels. Action 4: Reduce the underlying risk factors. Disaster risks related to changing social, economic, environmental conditions and land use, and the impact of hazards associated with geological events, weather, water, climate variability and climate change are addressed in sector development planning and programs as well as in post-disaster situations. Action 5: Strengthen disaster preparedness for effective response at all levels (UNISDR. 2005).

This policy aims to minimize the loss of lives and damages to property through proper mitigation and preparation for, and respond to and recovery from the impact of disasters. It recognizes the local risk patterns across country and strengthens the capacity of LGUs for disaster risk reduction and management through decentralized powers, responsibilities and resources at the regional and local levels. It also provides maximum care, assistance and services to individuals and families affected by disaster and facilitate resumption of normal, social and economic activities. And this decentralized powers start from the National level down to the Barangay level (R.A.10121).

This study however, will focus on the responsiveness of the LGU of Barangay Dalican, Datu Odin Sinsuat, Maguindanao towards various calamities like typhoon, landslide, and others. Moreover, to have an in depth understanding of their performance, this study will be designed to explore how does the LGU of Barangay Dalican carry out its Mandate in Disaster Risk Reduction and Management. This study will be beneficial to various Local and National Government Units as well as the community to determine how to act and respond in times of disaster.

1.2 Statement of the Problem

This study will evaluate the performance and responsiveness of the LGU of Barangay Dalican in the aftermath of Typhoon Paeng. Specifically, this paper aims to look into the following:

1. The budgetary allocation to carry out the mandate of the LGU of Barangay Dalican in DRRM.
2. The disaster preparedness activities conducted by the LGU of Barangay Dalican such as:
    - 2.1 Hazard Mapping
    - 2.2 Equipping
    - 2.3 Public Information and Educational Initiatives
        - a. Early Warning Systems
        - b. Evacuation Plan
    - 2.4 Training, Drills
    - 2.5 Post Disaster Recovery Activities
    - 2.6 Provision of Basic Needs
3. Identification of Standard Operating Procedure (SOP) with other related agencies in times of disaster, if any.
4. Evaluation of MSU-Maguindanao employee and student survivors on the performance of the LGU of Barangay Dalican and self- evaluation of Barangay Dalican officials' responsiveness in the aftermath of Typhoon Paeng, in terms of disaster preparedness activities like:
    - 4.1 Hazard Mapping
    - 4.2 Equipping
    - 4.3 Public Information and Educational Initiatives
        - a. Early Warning Systems
        - b. Evacuation Plan

4.4 Training, Drills
4.5 Post Disaster Recovery Activities
4.6 Provision of Basic Needs

5. The extent of Damage to property and life sustained by survivors of Typhoon Paeng.

1.3 Objectives of the Study

This quantitative study aims to assess the responsiveness of the LGU of Barangay Dalican in times of disaster. Generally, this study intends to determine the capacity of the LGU of Barangay Dalican to carry out its mandate in Disaster Risk Reduction and Management.

1.4 Significance of the Study

Cognizant of the fact that a disaster is a sudden event that could occur anytime and anywhere, and realizing the fact that disasters cause destruction and loss, an evaluation study like this paper is very significant and important.

This study will be of help to the municipality of Datu Odin Sinsuat in its primary responsibility to protect the lives and livelihood of its constituents from natural and man-made disasters. The results of this study will help the government of Datu Odin Sinsuat, particularly the LGU of Barangay Dalican, to enhance its capability to act timely and responsively to the needs of the people in times of disasters.

Presumably, the municipality of Datu Odin Sinsuat, particularly the LGU of Barangay Dalican, will be informed about their capacity to act timely and responsively to the needs of the people in times of disasters. This study can also help the people in Datu Odin Sinsuat to coordinate and participate in the existing programs needed for effective response. Moreover, this study will be able to identify the weak points of the LGU of Barangay Dalican, if there is any, and will also show how coordinating, prepared and active the LGU of Dalican is in responding to disasters.

This study may also serve as a reference for future researchers who will conduct a study on the capacity of the municipality of Datu Odin Sinsuat to respond responsively in the occurrence of a typhoon or other natural disasters.

1.4 Scope and Limitation

This study focuses on the performance evaluation of the municipality of Datu Odin Sinsuat, particularly the LGU of Barangay Dalican, in the occurrence of typhoon Paeng. This evaluation study will be based on the perception both of the LGU of Barangay Dalican officials (self-evaluation) and MSU-Maguindanao employee and student survivors on the performance of the LGU of Barangay Dalican in the aftermath of Typhoon Paeng. This study will also focus on evaluating the activities that should be conducted with regards to disaster preparedness. The evaluation will be based on the account of the respondents' responses to the questionnaires provided to them as well as the other available documents. The time frame of the study is from 2010 when R.A. 10121 was created, to October 28, 2022 when Typhoon Paeng happened, and onwards.

1.7 Definition of Terms

Disaster. A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. Disasters are often described as a result of the combination of: the exposure to a hazard; the conditions of vulnerability that are present; and insufficient capacity or measures to reduce or cope with the potential negative consequences. Disaster impacts may include loss of life, injury, disease, and other negative effects on human, physical, menta,l and social well-being, together with damage to property, destruction of assets, loss of services, social and economic disruption, and environmental degradation (Republic Act 10121). In this study, it refers to the recent Typhoon Paeng that has destroyed many parts of the Philippines, especially in Maguindanao.

Disaster Response/ Disaster Responsiveness. This is the provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected. Disaster response is predominantly focused on immediate and short-

term needs and is sometimes called "disaster relief" (Republic Act 10121). In this study, it refers to the actions taken by the LGU of Barangay Dalican as responses to the victims of Typhoon Paeng in MSU-Maguindanao.

Disaster Victims. This refers to persons or group of persons who have been affected by a natural or human- induced hazard who have to leave their habitual places of residence due to existing or impending threats, damaged shelter units, with casualty among immediate family members. They could also be those who remained in their habitual places of origin which are habitable but whose main source of income or livelihood had been damaged and are experiencing hopelessness and difficulty in coping or responding to the onslaught of hazardous events on their resources (Republic Act 10121). In this study, it refers mainly to the survivors of Typhoon Paeng residing in Barnagay Dalican.

Evaluation. This means to ascertain or fix the value or worth of. This also means to examine and judge carefully. Evaluation is the act of considering, judging and deciding on something that has been made. The process of judging a service, or a tangible object, is an evaluation. The word may be used in professional or societal terms, in regards to deciding whether something is good or not. (http://www.brittanica.com/evaluation). In this study, it refers to the performance evaluation of the LGU of Barangay Dalican in response to the aftermath of Typhoon Paeng.

Perception. This refers to the process, act, or faculty of perceiving or the way of perceiving; awareness or consciousness (http://www.brittanica.com/perception). In this study, it refers to the perception of the LGU of Barangay Dalican employees and MSU=Maguindanao employee and student survivors on the responsiveness of the LGU of Barangay Dalican in the aftermath of Typhoon Paeng

Response/ Responsiveness. This refers to the act of responding; a bodily process occurring due to the effect of some antecedent stimulus or agent. Any concerted effort by two (2) or more agencies, public or private, to provide assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected and in the restoration of essential public activities and facilities. In this study, it refers to the actions taken by the Barangay Dalican officials as assistance to the victims/survivors of Typhoon Paeng (Republic Act 10121).

Risk. The combination of the probability of an event and its negative consequences (Republic Act 10121).

Survivor. This refers to one who lives through affliction or one who outlives another; a person or thing that survives. (http://www.brittanica.com/survivor). In this study, it will refer to the survivors of MSU-Maguindanao.

Timeliness. This refers to being at the right time; timely convenience (http://www.brittanica.com/timeliness). In this study, it refers to how fast the LGU of Barangay Dalican officials responded to the effects of Typhoon Paeng.

Typhoon. This refers to a violent tropical hurricane or cyclone that occurs in the West Pacific and the Indian Ocean. (http://www.brittanica.com/typhoon). In this study, it refers to Typhoon Paeng or known as Tropical Storm Nalgae as its international name, that brought havoc to the municipality of Datu Odin Sinsuat, Maguindanao del Norte.

II. REVIEW OF RELATED LITERATURE

This chapter consists of the review of related literature, the framework itself including its presentation in the form of a paradigm, the hypotheses, and the discussion on key variables.

2.1 Related Literature and Studies

As the world has been greatly affected by various disasters, the need for disaster preparedness must also be considered. Thus, the question of the ability of the different actors involved like the local government to respond to calamities must also be given much attention.

Umil (2010) conferred that the Philippines only reacts when disaster strikes. According to Citizen's Disaster Response Center (CDRC), it has been evaluated that the Philippines topped the list of countries most frequently hit by natural disasters, as revealed by the Emergency Events Database (EM-DAT) being maintained by the Belgium-

based Centre for Research on the Epidemiology of Disasters (CRED). CRED also ranked the Philippines second to China in the top ten list of countries most affected by natural disasters in 2009 with 13.6 million people affected. This has challenged President Benigno S. Aquino III to prioritize disaster preparedness to prevent upcoming calamities.

Giovanni Tapang (2009) said that the vulnerability of the country to disasters is not just about the hazards that are present in the country
because earthquakes, typhoons, flooding are part and parcel of our geographical and geological location. Vulnerability is aggravated by poverty, lack of preparedness and proper disaster response. In 1991 Typhoon Uring was recorded as the deadliest typhoon in the Philippines because it killed around 6,000 people. In November 2009 Typhoon Pepeng was the most destructive with P27.3 billion (USD 608 million) worth of properties lost and destroyed. This simply confirms that if we are not prepared, the more losses we get.

Suyin Jamoralin, advocacy officer of CDRC, said that in reality, poor families are the most affected by calamities. Further, she said that the Philippine government relies on a knee-jerk response to disasters. They still would not invest on disaster preparedness activities, rehabilitation and mitigation. Their prevailing framework for disaster management is still within the traditional approach, which is focused on emergency relief measures rather than rehabilitation and mitigation. They only act when disaster happens and it's often dole-out (Umil, 2010).

The Presidential Task Force on Climate Change (PTFCC) in 2008 is one of the many government agencies that do not fully do its mandate. Its tasks are to design concrete risk-reduction and mitigation measures and adaptation resources, especially to address short-term vulnerabilities, on sectors and areas where climate change will have the greatest impact (PTFCC, 2008). Despite what they did, many lives were still lost during typhoon Ondoy in Luzon.

Another agency, the National Disaster Coordinating Council and Provincial Disaster Coordinating Council was observed to function only when disasters would happen. Giovanni Tapang of Agham (2009) conferred that they rarely have preparatory practice. Like what happened with Typhoon Basyang, Metro Manila was unprepared not only because the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) missed the prediction but because it simply was not ready for any disaster at all. No systems were in place and there were no clear lines of communications which led to main problems.

Although the Philippine government received funds from different funding agencies but still, the government's disaster response is not effective.

Thus, CDRC pushes for Community-Based Disaster Management (CBDM). It is a comprehensive approach to disaster management with a development perspective. Jamoralin in Umil, 2010 said that central to this approach is people's empowerment. The people must be involved and participate fully in all aspects of the process to bring about development, including disaster management. They must be involved in identifying potential risks and hazards to their communities, in building disaster preparedness committees (DPC) and in drafting a counter disaster plan such as warning, evacuation plan, securing of resources, organizational arrangements and policies, evacuation drills and training of community leaders and members.

Jamoralin added that disaster management should be a holistic approach and should not be separated from people's development. The CDRC, for example, should not only respond to disasters through relief but it should train communities on disaster preparedness. It must have a program for mitigation (tree planting, seed banking, etc.), emergency response (relief delivery, evacuation center management, psychosocial services), and rehabilitation (reconstruction, shelter, livelihood, etc.). It should not only lessen the communities' vulnerability to disasters but also enables it to get rid of it (Umil, 2010).

For its mandate to be realized CDRC must urge the new administration to fully implement the Disaster Risk Reduction and Management Act of 2010 (RA 10121) which was signed into law by former president Gloria Macapagal Arroyo on May 27, 2009 before she stepped down from office.

CDRC has confirmed that under the new law, the Calamity Fund, renamed as the National Disaster Risk Reduction and Management Fund (NDRRM Fund), could now be used for disaster risk reduction or mitigation, prevention and preparedness activities. Before this law was passed, the calamity fund could only be tapped during emergencies.

Escandor (2012) said the challenge to the new administration is to ensure that this law is fully implemented down to the barangay level.

The internalization of disaster management plans is very important (SHEEP Foundation, 2008) because it saves work after a crisis has passed and makes recovery faster and smoother. But, in the case of Indonesia, lack of consistent understanding and relatively limited skills became a barrier in responding to disasters.

Thus, information dissemination on disasters is necessary (Parmeshwari, 2009) because this allows people to prepare themselves for calamities. It is noted that having their own maps showing disaster- prone areas that are prone to landslides, flooding or vulnerable to earthquakes and tsunamis have motivated people to prevent building homes in the disaster- prone areas.

With all of this, there is a need for coordination among organizations responding in a disaster (Fraser, 2009). This provides knowledge they need during disasters and help them advocate for the needs of the community so it can be incorporated into the state and the local emergency management plan. In the case of Canada, the federal government does not take the lead to a coordinated emergency response, making it unprepared to respond to any terrorist attack, massive flood or other disasters when it strikes.

Meanwhile, an evaluation theory and practice can be directly linked to the expansion of government programs often described as the 'New Deal' during the 1930's in the United States and the implementation of various initiatives during the 1960's. From the 1960's, evaluation grew as an activity, a specialist field of employment with its own professional bodies, and as a body of theory. With large sums of state money flowing into new agencies with projects and programs often controlled or influenced by people previously excluded from such political power, officials and politicians looked to increased monitoring and review both to curb what they saw as abuses, and to increase the effectiveness and efficiency of their programs (Smith, 2006).

Disaster Preparedness

A need to a financial and economic soundness of any action is a criterion in making decisions. Whereas essential preparedness for response and integrating the cluster approach in DRM has been gaining adherents across the country, there is need to ensure that there is money to fund rehabilitation, reconstruction and recovery, hence the necessity to have the appropriate budgetary allocation for disaster risk reduction management (DRRM).

As revealed in their studies, Alejandro IV and Evasco (2010) indicated that Albay Province has adequate preparations in disaster management, particularly during the Prevention Phase. However, the province has limited preparations during the mitigation, response and recovery and rehabilitation phases of disaster management. This is brought about by a number of problems and constraints at the provincial and barangay levels. Given the high number of high risks barangays in the province, these constraints should be properly addressed in order to come up with a more effective and efficient disaster management programs.

In Israel (2010) study regarding various disasters that have occurred in the Philippines, he explained the inactions of the Philippine government prior and after the disasters. Thus, he suggests that accurate forecasting about the occurrences of natural disasters should be prioritized and enhanced. Subsequently, the Senate Economic Planning Office (SEPO) has included in its preliminary list of proposed legislative reforms the passing of the PAGASA Modernization Act. This potential law will seek to appropriate funds for the purchase of new equipment and staff training and education, among others.

Disaster preparedness includes all of the activities that are carried out prior to the advance notice of a catastrophe in order to facilitate the use of available resources, relief, and rehabilitation in the best possible fashion. Disaster preparedness starts at the local community level; if local resources were insufficient, it would branch out to the national level, and if needed, the international level (McMillan, 1998).

Disaster Mitigation

IAP (2009) claimed that an emergency disaster monitoring system with advanced, practical, fast and reliable technical ability should be further established and at emergency time, an authoritative institution should be guaranteed with "National Dispatching Power" so that it could effectively coordinate key space infrastructures to achieve a high degree of data sharing among different agencies. Thus, the importance of allocating sufficient budget to any disaster risk reduction agency like ICDRRMO must be prioritized in order to mitigate any negative impacts of natural disasters.

The PRC (Philippine Red Cross) proposed an integrated, community-based approach to disaster preparedness and mitigation which would deal with hazards and mitigates such calamities and limit casualties in the Philippines. They applied this project in Limasawa Island in Southern Leyte province and gratefully no lives have been lost. Consequently, Sutton and Tierney (2006) discuss that mitigation measures include appropriate land-use and coastal zone management practices, mandatory and voluntary building codes, and other long-term loss reduction efforts. In some cases, mitigation can also include moving neighborhoods and communities to other locations in order to avoid future losses. Mitigation activities can take the form of specific projects, such as elevating homes for flood protection, as well as process-related activities, such as hazard and vulnerability analyses, that are designed to lead to future mitigative actions.

A disaster not only refers to natural calamities but it refers also to incidents occurring which are inevitable such as oil spill and fire incidents. However, this study focuses only on how responsive is the BDRRMO when Paeng visited Maguindanao. Disaster mitigation is an ongoing effort to lessen the impact disasters have on people and property. Fewer people and communities would be affected by natural disasters with the use of this process (McMillan, 1998).

McMillan (1998) further underscored that through the Mitigation Action Plan, agencies are expected to apply the best mitigation practices to their own facilities; complete a national natural hazards risk assessment; develop partnerships to advance research, standards development, and cost-effectiveness measures; provide incentives; and spearhead a national public awareness campaign. State and local governments develop sustained administrative structures and resources for mitigation programs, adopt and enforce building codes and land use measures, and conduct an ongoing public information campaigns on natural hazard awareness and mitigation. Private industries accept responsibility for being aware of the natural hazards that threaten their facilities and investments and for reducing their vulnerability. Individual citizens accept responsibility for becoming aware of the natural hazards that affect them and their communities and for reducing their degree of vulnerability (McMillan, 1998).

Disaster Prevention

Tsunamis, like most natural disasters, are beyond human control. However, there are a number of techniques that can minimize the harmful effects of tsunamis to the physical environment and to individuals and communities (US National Tsunami Hazard Mitigation Program, 2013). Accompanied by an effective warning system, thoughtful design and strong community organization can reduce harm from tsunamis and other natural disasters (USNTHMP, 2013).

The US National Tsunami Hazard Mitigation Program further stressed the importance of understanding site conditions. Through zoning, creation of open space and not allowing new development in potential tsunami areas, safer land use will be better able to protect people and buildings (USNTHMP, 2013).

This was confirmed, when Hilo, Hawaii was hit by a tsunami in 1960. Due to the widespread damage brought by tsunami the downtown area was rebuilt according to the Hilo Downtown Development Plan which was passed in 1974. The plan determined safe areas to build based on both the 1946 and 1960 tsunamis that affected the downtown area. All new buildings had to conform to urban design and building design standards. Any building built below the 20-foot elevation contour line had to weather the force of a major tsunami. Parking structures were also designed to block the water from buildings farther inland (USNTHMP, 2013).

Moreover, a study by the International Federation of Red Cross and Red Crescent Societies in the Philippines found that community-based disaster action teams are an important element in disaster relief. Volunteering is a kind of grass roots organization which views the local community as the primary actors who have a good sense of what needs to be done and needs to be involved to make the changes that are needed. Working together on building

mitigation structures, such as seawalls and evacuation centers, creates a sense of control over the environment after a disaster and builds a sense of community among workers. Volunteers working on disaster preparedness are able to make connections between local villages and the larger disaster agencies (IFRC, 2013).

In Bangladesh a community-based program worked to reduce damage from flooding. Projects undertaken involved raising homestead yards so that cattle, poultry, feed and other possessions would be place above flood level. Other projects included building latrines and tube wells above the flood level. Shelters and community space were constructed as well as raised roads with culverts. Likewise, a 1988 project in Guagua, Indonesia focused on community-based projects that included building spur dikes, unclogging important waterways, dredging and building dikes (USNTHMP, 2013).

Disaster prevention is concerned with policies and programs to prevent the recurrence of natural disasters and covers the long-term aspect of such disasters. The small price to pay for any method of prevention and protection pays off in the long run. An example of this is the Anheuser-Busch facility. In the early 1980s, Anheuser-Busch invested $15 million to protect its facilities from an earthquake. In 1994, an earthquake whose epicenter was 12 miles away from the facility hit. However, because of the prevention the company took, it saved an estimated $300 million in damages (McMillan, 1998).

2.2 Theory Base

In the milieu of the study, the responsiveness and preparedness of the LGU of Dalican will be based on the rate of their performance in the disaster brought about by Typhoon Paeng. These ratings will come from the evaluation of the Barangay Dalican officials and MSU-Maguindanao employee and student survivors of tropical storm Paeng residing in Dalican based on the already identified parameters as stated or reflected in R.A. 10121. This study will use this theory for it clearly explains the co-associations of the three concepts such as the disaster, responsiveness and the performance of Datu Odin Sinsuat disaster risk reduction and management office that will be evaluated in this study.

Disaster preparedness is the awareness of government and other agencies in early warning activities such as Hazard Mapping, Equipping, Public information and Educational Initiatives, Trainings/Drills, as well as Community Organizing. Through evaluation studies, problems that impede a disaster monitoring system performance can be identified. The results can be used for system design, control, and capacity planning. This study may be valuable to researchers and practitioners involved in disaster and emergency response studies in planning the transportation of vital first-aid supplies and emergency personnel to disaster-affected areas and in improving chances of survival after a disaster (Bayrak, 2011).

Evaluation involves assessing the strengths and weaknesses of programs, policies, and organizations to improve their effectiveness. It provides a useful and important tool to address the need for credible information, well-grounded decision making, and governmental transparency. Within a government context, the legitimacy of evaluation can be seen as deriving from the structure of the government it serves and from the functions it fills (AEA, 2010).

Effective flood responses are those that build on people's existing ways of dealing with floods and complement their coping mechanisms, resources and social capital. In areas where flooding occurs regularly, the community is better prepared than those people living in places where floods are rare. Many flood-prone communities have local and traditional institutions dealing with disasters (ALNAP, 2008). Disaster response or responsiveness requires the local government and its agencies to render emergency services which include post disaster recovery activities of a community as well as the provision of basic needs of MSU-Maguindanao survivors in Dalican.

Basically, evaluation is either about proving something is working or needed, or improving practice or a project (Rogers and Smith 2006). Evaluation has key dimensions or distinctions namely, programme and project evaluation or practice evaluation and summative or formative evaluation. Program and project evaluation is a form of evaluation that is typically concerned with making judgements about the effectiveness, efficiency and sustainability of pieces of work. Here, evaluation is essentially a management tool. Judgements are made in order to reward the agency or the workers, and/or to provide feedback so that future work can be improved or altered.

Practice evaluation is a form of evaluation directed at the enhancement of work undertaken with particular individuals and groups, and to the development of participants including the informal educator. It tends to be an integral part of the working process. In order to respond to a situation worker, have to make sense of what is going on, and how they can best intervene or not intervene. Similarly, other participants may also be encouraged or take it upon themselves to make judgements about the situation. In other words, they evaluate the situation and their part in it. Such evaluation is sometimes described as educative or pedagogical as it seeks to foster learning. The learning involved is oriented to future or further action. It is also informed by certain values and commitments (Smith, 2006).

Evaluations can be summative or formative. It can be primarily directed at one of two ends. Hence, formative evaluation enables people and agencies make judgements about the work undertaken to identify their knowledge, attitudes and skills; to understand the changes that have occurred in these. And it also increases the ability to assess learning and performance. On the other hand, summative evaluation enables people and agencies to demonstrate that they have fulfilled the objectives of the program or project, or to demonstrate they have achieved the standard required (Smith, 2006).

The key part of evaluation is framing the questions to ask and the information, to collect such answers that provide indicators of change. Unfortunately, as perceived, much of the talk and practice around indicators in evaluation has been linked to rather crude measures of performance and the need to justify funding (Rogers and Smith 2006). In evaluation, the objective is to explore the sort of indicators that might be more fitting to the work.

The first often arises out of accountability to funders, managers and, crucially, the people working with. The second is born of a wish to do what can be done better. Evaluation is seen as an aid to strengthen our practice, organization and programmes (Chelimsky 1997: 97-188).

Evaluation is the systematic exploration and judgement of working processes, experiences and outcomes. It pays special attention to aims, values, perceptions, needs and resources. It entails gathering, ordering and making judgments about information in a methodical way. Evaluation is something more than monitoring. Monitoring is largely about watching or keeping track and may well involve things like performance indicators. Evaluation involves making careful judgements about the worth, significance and meaning of phenomenon. It is very sophisticated. There is no simple way of making good judgements. It involves, for example, developing criteria or standards that are both meaningful and honour the work and those involved. It operates at a number of levels. It is used to explore and judge practice and programmes and project. And evaluation if it is to have any meaning must look at the people involved, the processes and any outcomes identified (Rowlands, 1991).

Evaluation from its Latin origin means to strengthen or to empower. The term evaluation has taken a numerical turn. It is now largely about the measurement of things and in the process can easily slip into becoming an end rather than a means (Gitlin and Smyth, 1989).

Further, it is often difficult to identify who or what was significant in bringing about change. Last, when we look at, or evaluate, the work, as E Lesley Sewell (1966) put it, we tend to see what we are looking for. For these reasons a lot of the outcomes that are claimed in evaluations and reports about work with particular groups or individuals have to be taken with a large pinch of salt.

This research is an evaluation type of study. In this study, the LGU of Barangay Dalican is evaluated based on its performance regarding its responsiveness in the aftermath of Typhoon Paeng. This is done into two ways: evaluation of the LGU of Barangay Dalican officials and evaluation of MSU-Maguinadanao survivors on the activities conducted such as hazard mapping, equipping, public information and educational initiatives, training, drills, post disaster recovery activities, and provision of basic needs.

2.3 Conceptual Framework

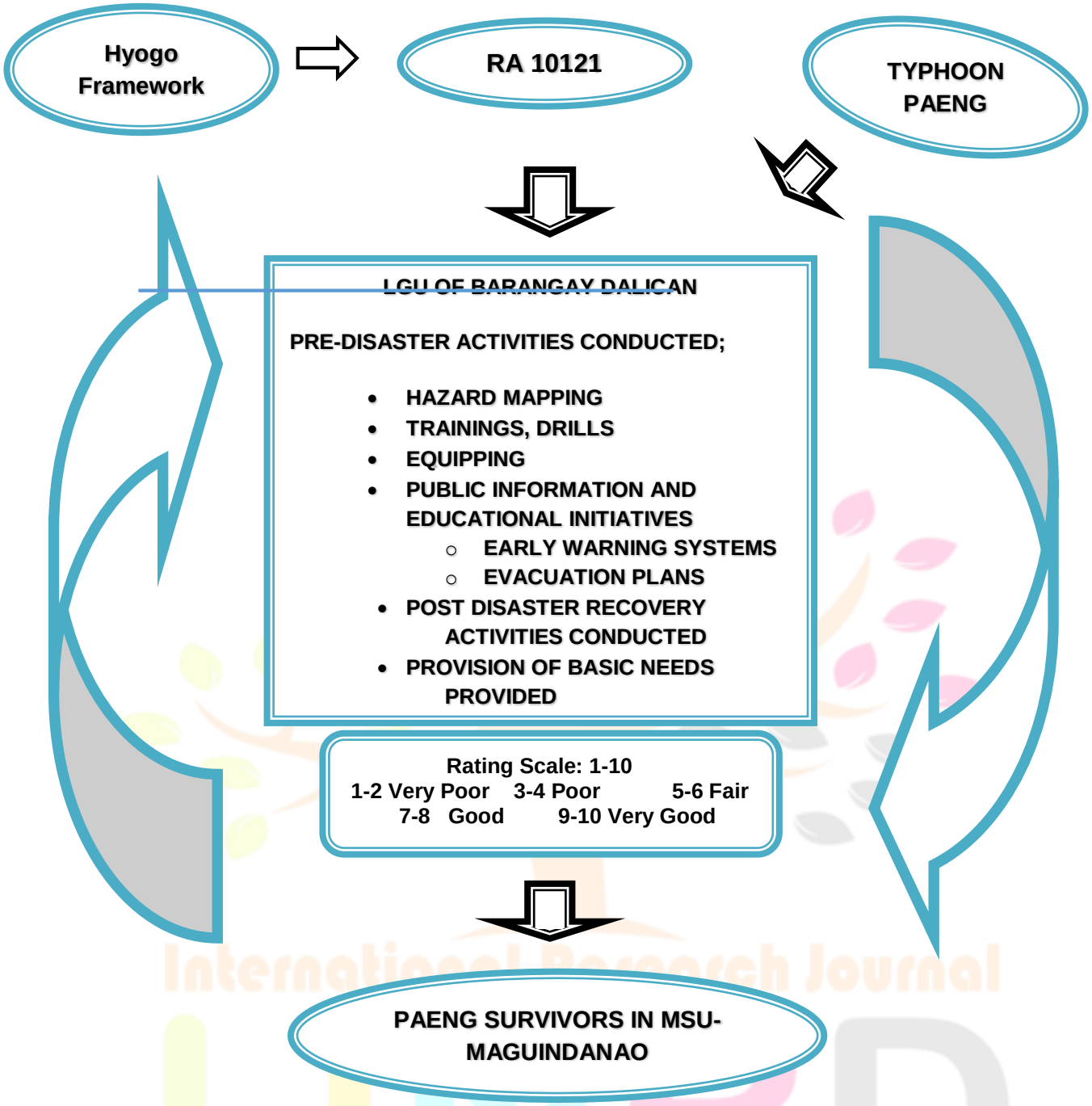

FIGURE 1. Schematic Diagram showing the Evaluation of the Disaster Responsiveness of the LGU of Barangay Dalican in the Aftermath of Typhoon Paeng.

Figure 1 demonstrates how the structure of the research idea or concept will be shown and how it is put together. This part summarizes the major (dependent and independent) variables of the research.

It shows that the researchers would be evaluating the performance of LGU of Barangay Dalican by examining their pre-disasters activities such as Hazard Mapping, Equipping, Public information and Educational Initiatives, Trainings/drills, Community Organizing, Post disaster recovery activities and Provision of basic needs. From the indicators, the responsiveness performance will be rated through self-evaluation by the officials of the LGU of Barangay Dalican and the MSU-Maguindanao employee and student survivors based on their perception and actual experience of how the LGU of Barangay Dalican responded in the wake of Typhoon Paeng.

The figure shows that this study will be evaluating the LGU of Barangay Dalican based on R.A. 10121 implemented by past President Gloria Macapagal Arroyo. RA 10121 will be linked with the Hyogo framework that advocates disaster preparedness, mitigations, and responsiveness that address the problems on natural disasters. This will

indicate that the LGU of Barangay Dalican's performance will be evaluated based on their response to the Paeng survivors in MSU-Maguindanao, and will be evaluated in a scale of 1 to 10.

2.4 Research Assumption

The following assumptions were made in the conduct were made in this study:

1. The instrument to be used will elicit reliable responses.
2. The respondents will fully understand the questions they will be asked.
3. The respondents will provide their honest observation.
4. The researcher will attain the objectives of the study in a 5-day thorough data gathering.

III. RESEARCH METHODOLOGY

This chapter includes descriptions of the method used, sources of data, the data gathering instruments, sampling technique, procedure of the study, and statistical treatment.

3.1 Method Used

This study is a descriptive survey research which seeks to find the responsiveness of the LGU of Barangay Dalican towards the aftermath of Typhoon Paeng among MSU-Maguinandanao employee and student survivors. The research will be administered through the use of structured questionnaire to the respondents composed of the LGU of Barangay Dalican officials and typhoon Paeng survivors in MSU-Maguindanao.

3.2 Sources of Data

Primary data such as survey and interview guide questionnaires will be used in gathering information from the respondents. Data through personal contact with the respondents will also be collected.

A recording device will also be employed to collect necessary data to ensure the reliability of the respondents answers to the questions. The informant's response will then be thoroughly analyzed after transcribing the data used for the research. Hence, secondary data like internet sources and existing data generated by the barangay and the various offices of the municipality of Datu Odin Sinsuat, Maguindanao will also be involved in this study.

3.3 Data Gathering Instrument

The researcher will use a survey and interview guide questionnaires. These will be used in gathering information from the respondents concerning the performance evaluation of the responsiveness of the LGU of Barangay Dalican in the aftermath of Typhoon Paeng. The instruments will be utilized in the study to come up with a more accurate data. Data through personal contact with the respondents will also be collected.

To facilitate the conduct of administering the questionnaire, a checklist of possible answers or responses for each question will be provided to the respondents. The item "others" will also be included in order to elicit maximum possible choices.

Also a rating instrument will be used in evaluating the performance of the LGU of Barangay Dalican's responsiveness in the aftermath of Typhoon Paeng. The following rating will be used: 1: poor, 2-3: fair, 4-5: average, 6-7: satisfactory, 8-9: very satisfactory and 10: excellent.

3.4 Sampling Technique

The researcher will utilize a random sampling method in choosing the actual respondents. The sampling frame is the number of the head of households who survived in the calamity brought by typhoon Paeng. Applying the formula below the actual sample survey for MSU-Maguindanao survivors will be achieved (Cañedo, 1998:36).

$$n = \frac{Nz^2p\ (1\text{-}p)}{Nd^2 + z^2\ [p\ (1\text{-}p)]}$$

Where:

n = Sample size
N = Population size
Z = z value of the desired reliability which is set to 90% reliability or 1.645
P = Population proportion set at 0.50
d = Maximum area value set at 0.05

3.5 Procedure of the Study

This study will utilize a survey questionnaire method of gathering the necessary data. The researcher will personally administer the distribution of the questionnaire to the respondents composed of all the officials of the LGU of Barangay Dalican and survivors of MSU-Maguindanao. The following will be used by the researcher in gathering data:

1. A letter asking permission to conduct the study will be sent to the Brgy. Chairman of Barangay Dalican. Once the permission will be granted, structured questionnaires will be administered to each respondent. The structured questionnaires will be distributed personally to the respondents. In order to ensure speedy retrieval, the researcher will wait for the questionnaires to be returned.

2. The data in this study will be based on the findings obtained from the respondents after tabulating and analyzing their responses using the percentage method. Alongside with the structured questionnaire, a focused group interview will be prepared consisting of English and Maguindanaon questionnaires asking them of the problems they face on the aftermath of Typhoon Paeng. The focused group discussion will utilize two officials from the LGU of Barangay Dalican and selected three Typhoon Paeng survivors in MSU-Maguindao whether an employee or a student. In the discussion, the researcher will act as a facilitator and recorder. After the focused group discussion, the recorded responses will be content analyzed. The results of the ratings will be presented through tables using the percentage method.

3. Aside from field data collection, information will be gathered also from various offices like City Planning and Development Office, City Budget Office and City Social Welfare and Development Office. Secondary data from internet sources were used mainly in the review of related literature and in developing the conceptual framework of the study.

3.6 Statistical Treatment

After collecting the questionnaire, the data along with the attached ratings will then be tallied, computed, and tabulated in a columnar pad. The tabulated and transcribed data will be interpreted and analyzed to come up with the conclusion, implications, and recommendations. Then they will be treated quantitatively through the use of percentage method. The scores based on the responses will be converted into percentage whose formula appears below:

$$\frac{n}{N}\ X\ 100 = \%$$

Where: n: scores registered per variable
N: Total number of respondents
100: constant

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